

Application No. 09/362,020

REMARKS

In response to the Office Action of June 4, 2004, Applicants have carefully considered the rejections of the Examiner in the above-identified application. In light of this consideration, Applicants believe that the claims as now amended, are allowable. Applicants respectfully request reconsideration of the rejection of the claims now pending in the application.

In the first Office Action of February 28, 2002, claims 1-7 where rejected under 35 U.S.C. §101 as not being within the statutory classes. Claims 1-4, 8, 9, 13-15, and 19-20 where rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,038,039 to Zeng (hereinafter Zeng). Claims 5-7, 10-12, and 16-18 where rejected under 35 U.S.C. §103(a) as being unpatentable over Zeng in view of U.S. Patent No. 5,459,828, to Zack et al. (hereinafter Zack).

In the second Office Action of August 27, 2002, claims 1-4, 8, 9, 13-15, and 19-20 where rejected under 35 U.S.C. §102(e) as being anticipated by Zeng. Claims 5-7, 10-12, and 16-18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Zeng in view of Zack.

In the third Office Action of October 25, 2002, claims 1-4, 8, 9, 13-15, and 19-20 are rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 5,706,046 to Eki et al. (hereinafter Eki). Claims 5-7, 10-12, and 16-18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Eki in view of Zack.

In the forth Office Action of April 14, 2003, claims 1-4, 8, 9, 13-15, and 19-20 are rejected under 35 U.S.C. §103(a) as being unpatentable over Eki in view of U.S. Patent 6,177,948 to Estabrooks et al. (hereinafter Estabrooks).

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Claims 5-7, 10-12, and 16-18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Eki in view of Estabrooks and further in view of Zack.

In the fifth Office Action of October 8, 2003, claims 1-4, 8, 9, 13-15, and 19-20 are again rejected under 35 U.S.C. §103(a) as being unpatentable over Eki in view of Estabrooks. Claims 5-7, 10-12, and 16-18 also stand rejected again under 35 U.S.C. §103(a) as being unpatentable over Eki in view of Estabrooks and further in view of Zack.

In this sixth Office Action of June 4, 2004, claims 1, 4, 8, 9, 13-15, and 19-20 are rejected under 35 U.S.C. §103(a) as being unpatentable over Eki in view of U.S. Patent 5,835,123 to Chung et al. (hereinafter Chung). Claims 5-7, 10-12, and 16-18 also stand rejected again under 35 U.S.C. §103(a) as being unpatentable over Eki in view of Chung and further in view of Zack.

Claims 1, 8, and 13 have been amended.

Claims 1-4, 8, 9, 13-15, and 19-20 are rejected under 35 U.S.C. §103(a) as being unpatentable over Eki in view of Chung. Eki provides an image forming apparatus including a bit map data generating section for generating binary dot data for each color from image data, an image memory for storing the dot data, an edge dot discriminating section for discriminating edge dots positioned in an edge section, such as a curved-line section, a slanted-line section of characters, graphics, photo images, etc. in dot data for black stored in the image memory, and a dot modulating circuit for modulating the dot data so that the edge dots and printing dots other than black ones become smaller than black printing dots other than the edge dots. With this arrangement, since linear tone can be obtained even in a section with a deep

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color, excellent tone can be obtained in multi-color printing such as full-color printing. Therefore, reproducibility of tone of binarized image data can be improved, and jaggedness in an edge section can be improved so as to have a smooth line.

As acknowledged by the Examiner in the present office action nowhere in Eki is there mention or teaching of auxiliary pixels, either by name or by functional equivalence. Auxiliary pixels are thoroughly explained in the applicant's specification. They are non-printing in effect pixels which nevertheless have a printing effect upon the original pixels which they neighbor, as will be well understood by one skilled in the art in view of the application. Please see pages 8-10 starting with lines 22-35, on page 8, and ending at line 5 of page 10.

Chung provides compensation for pixel aberrations in a laser printer as accomplished by selecting pixels to be augmented, and providing additional optical energy to the selected pixels. In one embodiment, the pixels are selected by selecting pixels in combinations in which required pixel augmentation is indicated. The additional optical energy may be applied at the sub-pixel level so that a threshold of energy depletion on an optical photoreceptor (OPR) is not reached where image development would occur. The energy applied at the sub-pixel level results in enhancement of the selected pixels at an adjacent pixel location.

Chung, being concerned only with aiding against the wash out (see for example: Chung column 6, lines 4 & 5) of *isolated* individual pixels (see for example: Chung column 6, lines 31 & 32) teaches only the placement of "energy applied at the sub-pixel level" directly *adjacent* to those isolated pixels (see for example: Chung column 6, lines 36 & 37). Thus Chung ignores and

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entirely fails to address the problem to which the Applicants' teaching is directed, namely lead edge deletion where the leading edges of image shapes are starved of toner, see page 1, lines 19-23, page 2 lines 1-18 and page 7, lines 20-23 of the Applicants' specification, sometimes even to the point of no development *particularly as system throughput speeds are increased*. The Applicants' teaching is particularly focused on getting out in front of the leading edge, outside the font character to start encouraging the toner cloud closer so as to insure proper toner accumulation. Thus, the claims as now amended more specifically call out that teaching for auxiliary pixel placement "spaced one pixel apart" (the specification support for which may be found on page 14, lines 14 & 15 of the Application). The claims as now amended are believed to overcome the reference to Chung and the rejection under 35 U.S.C. §103(a) as being unpatentable over Eki in view of Chung. Allowance of claims 1-4, 8, 9, 13-15, and 19-20 is respectfully requested.

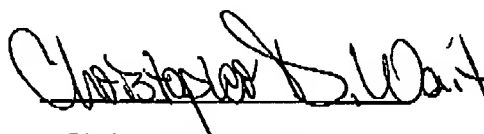
The Examiner has rejected dependent claims 5-7, 10-12, and 16-18 also stand rejected again under 35 U.S.C. §103(a) as being unpatentable over Eki in view of Chung and further in view of Zack.. As claims 5-7, 10-12, and 16-18 depend from independent claims deemed as now allowable they should be allowable as well. Allowance of claims 5-7, 10-12, and 16-18 is respectfully requested.

No additional fee is believed to be required for this amendment; however, the undersigned Xerox Corporation attorney authorizes the charging of any necessary fees, other than the issue fee, to Xerox Corporation Deposit Account No. 24-0025.

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It is respectfully submitted that the present set of claims as now amended are patentably distinct over the cited references. In the event the Examiner considers personal contact advantageous to the disposition of this case, she is hereby requested to call the undersigned attorney at (585) 423-6918, Rochester, NY.

Respectfully submitted,



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